Phylogeography of Bedriaga's rock lizard , *Archaeolacerta bedriagae* (Lacertidae) based on mitochondrial DNA sequences data

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Archaeolacerta bedriagae is a rock lizard endemic to Corsica and Sardinia. Four subspecies have been described based on weak morphological traits: the nominal one spread in Corsica and the remaining three in Sardinia (sardoa, paessleri and ferrerae, respectively in the Gennargentu Massif, Limbara mountains and coastal Gallura). Recent analyses of both allozyme and morphological variability did not support this subspecific arrangement (Salvi et al., unpubl.). Phylogeographic structure and relationships of 13 populations, representing the whole range of *A. bedriagae*, were analysed using mitochondrial sequences of nad4 and tRNA His genes. Genomic DNA was extracted from tail tips of 64 specimens and a fragment of 850 bp was amplified by PCR using ND4 and Leu primers. Sequences (from GenBank) of four species belonging to the genera *Podarcis* and *Lacerta* were employed as outgroups. Phylogenetic analyses were performed under the assumptions of both maximum parsimony (MP) and distance (NJ). We also analysed the genealogical relationships among the 19 haplotypes found by a statistical parsimony network. Both phylogenetic and haplotype network analyses showed the same geographical structure of genetic variability. The northern Corsica population appeared deeply differentiated from the remaining ones, whereas the southern Corsica population represented the sister group of the Sardinian populations. In Sardinia we identified three major groups distributed from North to South, being the Southernmost fairly differentiated from the others. The most parsimonious biogeographical hypothesis indicates an ancient colonization from southern Corsica to Sardinia, where considerable fragmentation into population groups subsequently occurred.